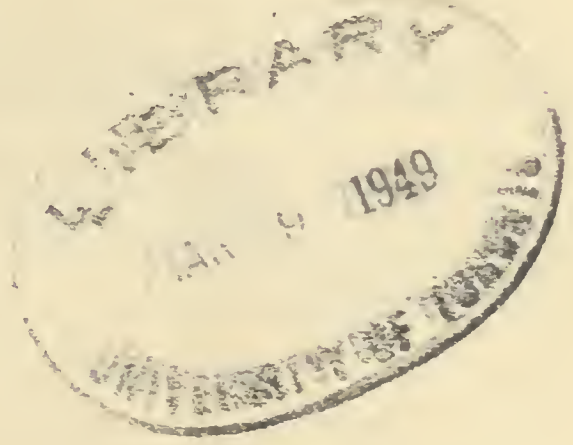
UNIVERSITY OF TORONTO

REPORT OF THE DEAN

OF THE

FACULTY OF MEDICINE



SESSION 1935-1936

THE UNIVERSITY OF TORONTO PRESS

UNIVERSITY OF TORONTO

FACULTY OF MEDICINE

Toronto, June 30th, 1936.

To the Graduates in Medicine of the University of Toronto:

The Annual Report of the Dean of the Faculty of Medicine for the Session 1935-36 is, with good wishes and greetings, sent to you herewith.

J. G. FitzGerald, M.D.,
Dean.

REPORT OF THE DEAN OF THE FACULTY OF MEDICINE

(J. G. FitzGerald, M.D., LL.D.)

This is a resumé of certain of the activities of the Faculty of Medicine during the forty-ninth session which closed on June 30th, 1936. It contains also reports from eighteen academic departments, an outline of the work of the Medical Art Service, notes from the Secretary's Office and accounts of some of the extra-curricular student undertakings.

Certain questions have, during the past two or three years, occupied much time of various committees of the faculty. These have included among many others discussions of methods of improving the present courses of study; the development of a satisfactory and acceptable method of bringing about the limitation of undergraduate registration; means whereby bursaries and scholarships for most deserving students may be increased in number and value; what may be done to stimulate and increase the interest of students in the libraries of the University; steps which will lead (it is hoped) to still further integration of teaching and the lowering of departmental barriers and greater, all-round emphasis on the teaching of preventive principles and methods in many of the laboratory and clinical departments. The most interesting and possibly most promising effort to bring about improvement in teaching arrangements and methods has taken place in the Department of Surgery. With the reorganization of the Surgical Services at the Toronto Western Hospital, the appointment of Dr. T. A. J. Duff as Surgeon-in-Chief as well as six other surgeons (four of whom have already held University appointments), plans have now been completed there to provide for clinical teaching in surgery for sixth, fifth and fourth year students. This is a most satisfactory conclusion reached after much effort. These additional facilities, too, obviate the necessity of assigning certain sixth year groups to the Hospital for Sick Children, an arrangement never

regarded as satisfactory because it meant that such students were not afforded suitable opportunities for the study of surgical conditions occurring in adults. Clinical instruction for all fifth year students will, however, be given at the Hospital for Sick Children.

In the Departments of Surgery and Obstetrics and Gynaecology dissatisfaction with existing opportunities for clinical teaching has led, this year, to determined efforts designed to improve matters. In Surgery the students have been assigned regular hospital duties under interne direction. The experiment, however, has been only partially successful owing to existing lecture schedules. To ascertain, if possible, whether a limited amount of summer clinical teaching in surgery for a group of twelve students could be given satisfactorily, an experiment is being made during the months of June, July and August, 1936. Three students have been attached to each Surgical Division at the Toronto General Hospital and one to a similar division at St. Michael's Hospital. The opportunities for much more satisfactory preparation of the students in surgery appear to exist and much is hoped for from this effort. At the end of the three months' period these twelve students who have volunteered and been admitted to the course will be given a clinical examination in surgery. If successful they will not be required to undergo a further clinical test in the subject at the close of the sixth year. A similar experiment is to be made by the Department of Obstetrics and Gynaecology with a view to improving the clinical instruction in obstetrics. This is exceedingly important because of the place this subject should occupy in the medical curriculum.

A proposal emanating from the Department of Surgery looking to the extension of the final year from thirty to forty-eight weeks has been discussed in a preliminary fashion in the Committee on Curriculum and Examinations and is likely to receive further study and consideration. There is little doubt that the present break between fifth and sixth years when students should be (and many are, in an unorganized fashion) deeply engrossed in clinical studies, might well be superseded by some more suitable arrangement.

The unfortunate overcrowding, resulting from the ad-

mission of too large a number of undergraduates in the first year, continues. The observations made by two of my colleagues in reference to this question may be cited. Professor W. E. Gallie writes: "Each year I bring to your attention the calamitous effect of the constantly increasing numbers of our students on the quality of our teaching. I have no thought that it is the function of the Medical School to attempt to teach the Art of Surgery to undergraduate students, but it is becoming increasingly difficult, owing to the numbers, to teach them the bare essentials that are necessary for general practice. Besides interfering with the quality of our clinical teaching, the number of students is creating a nuisance in the hospitals. . . .We simply must find a way to limit the number of students coming into the clinical years". With that view I am in complete and entire agreement.

It might not be so serious if our students were of such quality that medical science and the community would likely suffer were some of them not afforded a medical education (at least in this University). To allay any apprehension which might arise on those grounds I may quote from the report of one other colleague, Professor J. C. B. Grant, who states: "Our best students are excellent; our poorest students are numerous and extremely poor". The number of those who every session are "repeating" confirms this observation. The situation is one which should be remedied and in this report I desire once again to make a plea for limitation in the number of students admitted to classes in this faculty.

Attention was last year directed to the commendable action of the undergraduate Medical Society in again donating the surplus on operations of the society to the Board of Governors to provide modest bursaries for worthy students in need of financial assistance. The Medical Society contribution to which was added a sum provided by the Board of Governors, made possible the award of thirty-seven bursaries in all. These ranged in value from fifty to one hundred dollars. This most admirable arrangement is unique in this University and those undergraduates in medicine who are responsible are to be congratulated upon the wisdom they have shown in this connection. The thanks and appreciation of the Faculty are hereby tendered to the Medical Society.

Bursaries and scholarships and suitable criteria for admission to this faculty may some day mean that no boy or girl in this province who is a worthy candidate for a place in the profession of medicine will be denied admission or be unable to proceed with medical studies for economic reasons. State scholarships as well as those founded by private benefactors would hasten the arrival of that day. From the standpoint of the community as well as that of the profession it is a consummation devoutly to be desired.

The teaching of preventive medicine is not the responsibility of any single department in this faculty. Those which contribute largely to the present plan of instruction include: Hygiene and Preventive Medicine, Medicine, Paediatrics, Psychiatry, Obstetrics, Physiology. Then too, the departments of the School of Hygiene and Connaught Laboratories also participate in the preparation of the undergraduate in public health and preventive medicine. While further progress can still be made it is not too much to claim that in this University the medical student has almost unique opportunities for becoming acquainted with the principles and methods of preventive medicine and with the opportunities which exist for the practice of preventive as well as of curative medicine. This year, as well, students in the fifth year during their field course have learned something of the social resources of the community. For this we are indebted to Miss Margaret Gould of the Child Welfare Council and to Miss Frieda Held, M.A., Assistant Deputy Minister of Labor.

This faculty in October had the pleasure of entertaining those who attended the annual meeting of the Association of American Medical Colleges. This was the first occasion upon which the Association has met in Toronto. Interesting and valuable discussions of various topics combined with the opportunity afforded of informal discussions of teaching problems between sessions and the social intercourse rendered possible by the assembly of representatives of eighty universities in the United States and Canada made the occasion altogether noteworthy. It was a source of great pleasure and gratification to his colleagues in this faculty when Dr. E. Stanley Ryerson, Assistant Dean and Secretary, was named President-Elect of the Association for the next year.

In November, 1935, representatives of the Council on Medical Education and Hospitals of the American Medical Association and of the Association of American Medical Colleges visited departments of the Faculty of Medicine and the teaching hospitals. This was really a survey of the present facilities and organization of this faculty as a part of a study of medical education in all so-called "Grade A" schools in the United States and Canada. The reports of this enquiry will be compiled and arranged by Dr. H. G. Weiskotten, Dean of the School of Medicine of Syracuse University, who has served as Director of the study. Dr. Ryerson assisted in the survey of a number of medical schools both in Canada and the United States. Such periodical enquiries into the existing status of medical education, the scrutiny of methods of instruction and the organization of courses of study, glimpses of the physical plant and equipment, and finally, careful consideration of the resources of each school in research and teaching personnel, undoubtedly serve many useful purposes. Complacency and satisfaction with present accomplishments are more than likely to be disturbed by visits from colleagues whose business it is to point out our shortcomings and inadequacies both in plans and methods.

In 1935 the College of Physicians and Surgeons of Ontario ceased to conduct examinations. The certificate of the Medical Council of Canada indicating that the candidate for registration has passed the examinations conducted by the Council is now accepted by the College as completing its requirements. Reference to this forward step has already been made. This year the College has raised the entrance requirements for registration as a medical student to conform to those of the universities in Ontario. Now remains the development and adoption of a plan acceptable to the Council, the College and the universities in this province whereby university degree and certificate and licensure may be obtained by passing one not two sets of examinations.

The undergraduate Medical Society has for many years past published a very creditable Medical Journal. The editorial direction and business management are entirely in the hands of members of the Society. A member of the Faculty of Medicine serves in an advisory capacity to the

editorial board. Thus far subscription to the Journal has been voluntary upon the part of medical undergraduates. This year the Society, having revised its constitution with the overwhelming approval of members of the Society, the Faculty of Medicine and the Board of Governors, gave approval to the new constitution. This provides for an increase in the membership fee from three to four dollars. This fee will cover free subscription to the Medical Journal in addition to other privileges of membership heretofore enjoyed. It is anticipated that in future years any surplus on operation of the Society will be contributed to the Bursary Fund to which reference has already been made.

This session, Lister Day fell on Sunday and in consequence the ninth Donald C. Balfour Lecture in Surgery* was delivered on Monday, April 6th. The lecturer was Dr. Melvin S. Henderson of the Mayo Clinic, Rochester, Minnesota. The title of the address was "Orthopaedic Surgery, an Historical Review". Dr. D. E. Robertson, a classmate of Dr. Henderson, moved the vote of thanks, upon conclusion of an interesting address. A few days thereafter Dr. Robertson was one of the victims of a mine cave-in and for ten days his colleagues shared with his relatives and literally thousands of friends and well-wishers not only in North America but in all parts of the world the gravest anxiety as to his survival. To the profound thankfulness and gratification of all, Dr. Robertson's life was spared and his collegues rejoice that he has been enabled to continue the splendid service he has for long years rendered to mankind and very especially to crippled children.

His Honour the Lieutenant-Governor once again placed the Faculty of Medicine under a debt of gratitude by graciously entertaining for the Donald C. Balfour lecturer, the President of the University, a number of members of the Senate, heads of departments and others. His Honour also attended the Lister Day celebration.

Very successful post-graduate courses have been given during the session. Those provided by the Departments of Surgery and Paediatrics were conspicuously successful and largely attended. In the past year members of the Faculty

*Copies of the Balfour Lecture may be obtained on application to the Medical Office.

of Medicine to the number of sixty have participated in the extra-mural post-graduate medical meetings held under the auspices of the Ontario Medical Association. One hundred and sixty lectures in all were given. It is perhaps not generally realized the extent to which members of this faculty participate in such post-graduate work. The task of maintaining a high level of professional competence among members of the medical profession in the constituency served by this University is fully appreciated.

The Charles Mickle Fellowship, "awarded annually to that member of the medical profession who is considered by the Faculty of Medicine to have done most during the preceding ten years to advance sound knowledge of a practical kind in medical art or science", has this year been given to Dr. Donald D. VanSlyke of the Rockefeller Institute for Medical Research for his work on methods of blood analysis and gasometric microanalysis, also for his work on respiratory and renal functions, on diabetes and nephritis, and in general, for his investigations in the field of quantitative clinical chemistry. The Ellen Mickle Fellowship has been awarded to Omond M. Solandt, M.A., B.Sc. (Med.). Dr. Solandt further distinguished himself by winning the Faculty Gold Medal, the Chappell Prize in Clinical Medicine, the William John Hendry Memorial Scholarship in Obstetrics and Gynaecology, the Ontario Medical Association Prize in Preventive Medicine, the Canadian Medical Institute Prize and the David Dunlap Memorial Scholarship in Psychology. A notable record.

The John Copp Bursary to which brief reference has previously been made was established in memory of the late John Copp. The purpose of the Bursary is the advancement of medical education in the University of Toronto. The income from the trust is awarded to the student in this University who is eligible for admission to the fourth year. The award is made upon the recommendation of a committee which takes into account, in making a recommendation, the character, athletic ability, scholarship and general interests of those nominated, so that "the holder of the Bursary should possess those qualities and attain a high standard in each, but in no one to the exclusion of the others; the holder to have qualities and attainments as much like the late John

Copp as possible". It is further stipulated that while the recipient of the Bursary must be a good student it is clearly understood that the other characteristics mentioned above as well as scholastic attainment must be possessed by the person recommended for the award. The nominee in 1935 was Mr. M. F. Williams, president of the fourth year class, and in June 1936, Mr. C. Cameron Gray was awarded this Bursary. Two very worthy recipients.

To Dr. E. Stanley Ryerson has come election to the office of President-elect of the Association of American Medical Colleges. Dr. H. C. Parsons has been made a Fellow of the Royal College of Physicians of London. A similar honour has come to Sir Frederick Banting. Dr. K. G. McKenzie has been elected President of the Harvey Cushing Society. Dr. M. M. Crawford has been appointed physician to the Canadian Olympic team to visit Berlin in August 1936. The Dean of the Faculty was reappointed a Scientific Director of the International Health Division of the Rockefeller Foundation for a three-year period. He has also been made a member of the Permanent Commission on Biological Standardization of the Health Organization of the League of Nations. The Rockefeller Foundation has invited him, also, to undertake for a period of one year from the first of October 1936 a study of the methods at present employed in the teaching of preventive medicine in medical schools in the United States, Canada, the British Isles and Europe.

Sir Frederick Banting, Professor C. H. Best, Dr. W. R. Campbell, Dr. E. T. Waters, among others, attended sessions of the International Physiological Congress in Leningrad in August 1935. Professor Best spent the month of February as guest lecturer in Physiology at Yale University. The Morris Herzstein Lectures at Stanford University Medical School were delivered in San Francisco in March by the Dean of the Faculty. Dr. E. S. Ryerson attended the meetings of the Congress on Medical Education held in Chicago in March, and Dr. J. H. Elliott attended the Tenth International Congress on the History of Medicine in Madrid and Toledo in the autumn of last year. Dr. D. T. Fraser delivered a DeLamar Lecture at the School of Public Health, Johns Hopkins University, in April 1936.

The members of the Faculty of Medicine deeply regret the loss by death during the year of Dean F. B. Allan, for many years a most valuable and helpful colleague held in the highest esteem by all. They most deeply mourn also the loss of a former colleague and friend, Sir John McLennan, for many years a highly valued member of this faculty. The death of Dr. Graham Chambers, for a lengthy period a clinical teacher in the Department of Medicine, is sincerely regretted. The passing of Dean Seccombe of the sister Faculty of Dentistry during this session was the occasion of sorrow to his colleagues in this faculty. The death of Professor I. V. Pavlov, world famous physiologist and Charles Mickle Fellow in 1921, is here recorded with regret.

Dr. F. A. Clarkson retires this year as Assistant Professor of Medicine. He carries with him into retirement the thanks and best wishes of the Faculty of Medicine. Dr. C. B. Weld has resigned his appointment as Assistant Professor of Physiology upon his appointment to the chair of Physiology in Dalhousie University. Dr. Weld has been a valued member of this University for several years past and sincere thanks for splendid service and every good wish for success in his new field are hereby extended to him. Dr. James Wood has resigned as Demonstrator in Surgery, Dr. J. C. Calhoun and Dr. M. B. Whyte as Senior and Junior Demonstrator respectively in Oto-Laryngology. To all three gentlemen it is desired to express warm thanks for the services which they have given to the University. Dr. J. G. FitzGerald has resigned as Dean of the Faculty of Medicine, and Dr. W. E. Gallie has been appointed by the Board of Governors to serve as Dean for a three-year period from July 1st, 1936.

The following appointments and promotions have also been made:—

E. H. Botterell—*Lecturer in Neuro-Physiology and Fellow in Surgery.*

J. Craigie—*Assistant Professor of Epidemiology.*

B. F. Crocker—*Lecturer in Biochemistry.*

H. K. Detweiler—*Assistant Professor of Medicine.*

T. A. J. Duff—*Assistant Professor of Surgery.*

Frieda Fraser—*Assistant Professor of Hygiene and Preventive Medicine.*

G. E. HALL—*Assistant Professor in Medical Research, Banting.*

J. M. HERSHEY—*Lecturer in Physiology.*

G. F. MARRIAN—*Professor of Biochemistry.*

T. F. NICHOLSON—*Associate Professor of Pathological Chemistry.*

D. Y. SOLANDT—*Assistant Professor of Physiology.*

MEDALS, PRIZES, SCHOLARSHIPS AND FELLOWSHIPS

Awarded by the Senate of the University Faculty of Medicine

SIXTH YEAR

The Faculty Gold Medal.....O. M. Solandt, M.A., B.Sc. (Med.)
The Faculty Silver Medal.....C. H. Jaimet
The Faculty Silver Medal.....A. M. Large, B.A.
The Ellen Mickle Fellowship.....O. M. Solandt, M.A., B.Sc. (Med.)
The Chappell Prize in Clinical Medicine
O. M. Solandt, M.A., B.Sc. (Med.)
The William John Hendry Memorial Scholarship in Obstetrics and Gynaecology.....O. M. Solandt, M.A., B.Sc. (Med.)
The Ontario Medical Association Prize in Preventive Medicine
O. M. Solandt, M.A., B.Sc. (Med.)
The David Dunlap Memorial Scholarship
O. M. Solandt, M.A., B.Sc. (Med.)
The Canadian Medical Institute Prize...O. M. Solandt, M.A., B.Sc. (Med.)

UNDERGRADUATE

The John Copp Bursary.....C. C. Gray
The David Dunlap Memorial Scholarships:
(*a*) Fifth Year.....W. R. Feasby, B.A.
(*b*) Third Year.....J. C. McCulloch
The Ronald S. Saddington Medal in Pathology.....E. B. Tovee
The Baptie Scholarship.....J. H. Tritt

GRADUATE

The Reeve Prize.....M. H. Roepke, B.S., M.S., M.A., Ph.D., and S. L. Cohen, B.A.
The George Brown Memorial Scholarship in Medical Sciences
R. E. Haist, B.A.
The Alexander McPhedran Research Fellowship in Clinical Medicine
R. C. Dickson, M.D.
The Perry Goldsmith Prize in Oto-Laryngology.....J. A. Sullivan, M.B.
The J. J. Mackenzie Fellowship in Pathology and Bacteriology
R. P. Douglas, M.D.
The Lister Prize in Surgery.....H. R. Ziegler, M.D.

REGISTRATION OF STUDENTS IN THE FACULTY OF MEDICINE

Session 1936-1937

	Men	Women	Total
First Year	135	20	155
Second Year	148	11	159
Third Year	136	10	146
Fourth Year	132	11	143
Fifth Year	102	10	112
Sixth Year	114	8	122
Diploma in Public Health	17	0	17
Diploma in Psychiatry	4	0	4
Bachelor of Science (Medicine)	4	1	5
Post Graduate	29	3	32
	821	74	895

DEPARTMENT OF ANATOMY

(*Under the direction of Professor J. C. B. Grant*)

There were working in the Department of Anatomy during the session 1935-1936:

Medical Students:

Second Year	132	
Third Year—regular	130	
occasional	1	
Biological and Medical Sciences:		
Third Year—regular	31	(with second year medicine)
Fourth Year—regular	29	(with third year medicine)
occasional	1	" " " "
Dental Students:		
Second Year	37	
Post Graduate Students:		
Embryology	1	(with 1 Histology)
Gross Anatomy	1	(Ph.D. Minor)
Gross Anatomy	1	(Occasional)
Total	364	

Of these a number elected anatomical subjects as options as follows:

III Year—Cytology	3	(Dr. Piersol)
III Year—Special Histology	42	(Dr. Ham)
IV Year B. & M.—Special Histology	4	(Dr. Ham)

Graduate Course in Psychiatry—Neurology 7 (Dr. Linell)
Courses in Elementary Anatomy were given, as follows:

Graduate Nurses from School of Nursing	15	(Dr. George)
First Year in Occupational Therapy	21	
First Year in Physiotherapy	21	
Second Year in Physiotherapy	12	

Physical Education:

Margaret Eaton School Juniors	17	(Miss McMurrich)
Margaret Eaton School Seniors	17	
II Year Arts	5	
III Year Arts	5	

A course of eight lectures was given by Dr. Cates to 20 students of the College of Optometry.

Ten graduates, interested in various fields of anatomy, performed dissections during the session.

Our best students are excellent; our poorest students are numerous and extremely poor.

The Anatomy Club, under the chairmanship of Dr. Watt, held 20 meetings during the session. At these a considerable range of subjects was under discussion. Much valuable research work in progress or just completed was reported by various speakers. Interesting and informative discussions on new knowledge of various anatomical problems proved of great value to the members of the club.

The arrangement, which has been in vogue for several years, whereby the head of the Department of Surgery recommends annually a graduate proceeding to the degree of M.S. for a demonstratorship in Anatomy and Physiology has been highly successful. The men recommended have uniformly proved themselves keen, capable, and appreciative instructors.

Many new dissections have been added to the museum. These are so displayed on revolving bases that they can be examined from all angles by the student seated with text-book and notes beside him.

A compact X-ray viewing cabinet, capable of holding from 200 to 300 films has been designed by Dr. Watt and placed in the museum where it is accessible to the students. It is

adapted from the one in the Department of Radiology in the General Hospital. The important anatomical features in each film will be suitably indicated during the summer.

During the summer the head of the department, working in collaboration with Mr. W. J. Wintemberg, assistant archaeologist to the National Museum, exhumed a very valuable collection of prehistoric Indian remains from an ossuary near Windsor. The location of this find was made known by Mr. G. F. Macdonald and Mr. Alastair Macdonald of Windsor. We are deeply indebted to them for their assistance in obtaining the material and for their kindness to us.

During the summer vacation several students worked under Dr. Ham inaugurating and developing methods of tissue culture; several others made dissections for the Department.

The September class in Anatomy and Physiology, open to those proposing to sit the primary examination of the Royal College of Physicians and Surgeons of Canada, was attended by 15 graduates and undergraduates. As information regarding the Fellowship is not readily available, it may be stated here that 9 out of 14 candidates passed the examination. Dr. Watt conducted the Anatomy section of the class with conspicuous success.

Professor E. A. Linell became associated with the Department of Anatomy in 1923. He generously continued in charge of the teaching of the anatomy of the nervous system after his transference to the Department of Pathology on his becoming Professor of Neuro-Pathology in 1931. It is now with much regret that his withdrawal from active teaching in the Department must be recorded. His graphic presentation of a somewhat difficult subject was greatly appreciated by his students in whom his interest was very great. It is hoped by all that he will continue to attend the various meetings of the Anatomy Club and that he will be available for consultation.

This leaves the Department without a trained neurologist.

It is also regretted that we are to lose the services, so faithfully given, of Dr. Walter Fletcher, who for the last six years has acted as demonstrator of Anatomy. He resigns

owing to the increasing demands made on his time by his practice. His presence will be much missed.

Dr. H. D. Ball, who has given such yeoman service in the teaching of Histology, stepped into the breach and assisted in the teaching of Anatomy to the second year class of Physical Education and to the students of the Margaret Eaton School, when the Department was suddenly and unexpectedly called upon to assume responsibility for the teaching of these classes at the beginning of last session.

During the session M. A. H. Siddiqi, M.S., F.R.C.S. (England), Professor of Anatomy at King George V Medical College, Lucknow, worked in the Department as a Vincent Massey Fellow. During this time he made very important contributions to our knowledge of the development of the urogenital tract.

The head of the Department was recently appointed a member of the Council of the Anatomical Society of Great Britain and Ireland.

DEPARTMENT OF MEDICAL RESEARCH

(Under the direction of Professor F. G. Banting)

Dr. D. A. Irwin and his group of workers have investigated the toxicity of various kinds of quartz; the effect of the dilution of quartz by carbon and microcline; the toxicity of various mine dusts in the unaltered state and when separated into gravity fractions. With Dr. B. C. Coles he has studied the siliceous materials found in the lungs and lymphatic glands of non-silicotic persons.

A quantitative estimation of quartz in dust by X-ray diffraction method has been made with the assistance of Mr. H. H. Binden.

Dr. J. T. Fallon has found that the granulomatous tissue produced by the injection of finely particulate quartz contains a silica-free lipid which on injection produces a nodular fibrosis.

Dr. Coles has prepared aqueous solutions of quartz which, when injected into the lung, produced an early tissue response similar to that given by finely particulate quartz. The injection of varying concentrations of such a solution has

given further information about the toxic properties of soluble silica.

Dr. W. R. Franks has continued the study of the effect of silica dust and silica solutions on monocytes in tissue culture.

Dr. Franks and Mr. A. Duncan have attempted to develop methods of anlayzing silica dusts by suspending them in fluids of known refractive index and studying their light value by the photoelectric dust estimator.

With the assistance of Mr. H. J. Creech and Miss M. Shaw, Dr. Franks has continued the work on the synthesis of chemo-antigen related to tumor.

Dr. Franks and Mr. L. D. Proctor, in co-operation with the Department of Psychiatry, have been investigating the relation of glyoxalase activity to some mental diseases.

Dr. C. C. Lucas has succeeded in isolating the disulphide of normal urine in a pure condition. The compound has been identified as l-cystine. Further work on the neutral sulphur compounds in normal urine is in progress.

Dr. Lucas and Miss M. Dolan have continued the study of leaching silica from silicates.

Mr. K. Watson has been unable to find organic compounds of silcon in biological materials.

Mr. E. L. Outhouse has succeeded in identifying the phosphoric ester from tumors obtained last year, as amino-ethyl phosphoric acid. A study of the characteristics of the pure compound has led to improved methods of isolation, by means of which it is hoped to establish the presence or absence of this compound in normal tissues.

Mr. L. B. Macpherson has been engaged in a study of the fractional hydrolysis of cephalin. There is at present some evidence that lecithin and cephalin may be precursors of the phosphoric esters found in tumor tissue.

Mr. F. H. Lawford has prepared several new esters of phosphoric acid to add to the homologous series of compounds which he synthesized last year.

Drs. G. E. Hall, G. H. Ettinger, F. G. Banting and Mr. G. W. Manning have continued the study of the effects of daily intravenous injections of acetylcholine in the dog. Miss J. Lang has investigated the effect of such injections

on the cell-count, viscosity, CO_2 combining-power, sugar, N.P.N. and chlorides of the blood of these dogs.

Other problems being investigated by Dr. Hall and his group are:

Electrocardiographic changes by vagus-phrenic anastomoses.

The effect of daily injections of atropine and ephedrine on the blood-pressure of the dog.

The effect of continuous injection of acetyl-choline in normal and atropinized and eserinized dogs.

Studies on the serum esterase.

The effects of long-continued stimulation of the vagus nerve of the dog.

Dr. F. G. Banting and Miss S. Gairns have continued the work on experimental tumor.

During the past year extensive alterations have been made in the arrangement of working space in this Department. By this means facilities have been provided for carrying on experimental neuro-physiology. The Department would like to express to the Board of Governors their sincere appreciation for permission to make these changes. Because of the co-operation of the Superintendent's Department, there was a minimum of disturbance in the continuity of our work.

The Department of Medical Research would like to express their appreciation and thanks to the other Departments in the Faculty of Medicine for their kind co-operation. We would like particularly to thank the Department of Physics for their co-operation and use of facilities in the X-ray determination of quartz, and the Department of Mineralogy for guidance and suggestions in connection with the silica problem.

DEPARTMENT OF BIOCHEMISTRY

(Under the direction of Professor H. Wasteneys)

Changes in staff during the year involved only junior appointments. Mr. G. Butler was appointed a Fellow to replace Dr. L. Farber who resigned during the summer.

Dr. Saul Cohen was absent during the Michaelmas term which he spent working as an assistant to Professor J. C. Drummond in the Department of Biochemistry of University

College, London. His duties on our staff were carried out for that term by Mr. A. D. Odell. Mr. Cohen returned in time to take up his work as a teaching Fellow in the Easter Term. During his stay at University College he gave instruction in the course in Biochemistry for the medical students of that College and also carried out some research work under Professor Drummond on the metabolic products of skatol. The experience thus gained increased Mr. Cohen's value to this department. Mr. A. W. A. Brown, a Fellow in the department, was awarded a Royal Society Fellowship in May and has left to work with Dr. V. B. Wigglesworth at the London School of Tropical Medicine on Insect Metabolism.

Dr. L. Farber has spent the session working on a Banting Research Foundation grant under Dr. Wynne's direction on the enzyme systems of pathological organisms. Two other recipients of Banting Research Foundation grants also worked in the department during the session, Dr. Marion Lawson and Dr. S. S. Weinstein.

The total number of students registered in the department during the session 1935-36 was 358. This number was made up of 127 medical students, 60 students in the B. & M. course, 14 Chemistry, 11 P. & B., 3 Biology, 36 Household Economics, 27 Household Science, 1 General, 27 Dentistry, 4 Chemical Engineering, 1 Honour Chemistry, 1 occasional and 46 graduates. Of the graduate students, 34 were candidates for the Ph.D. degree, 6 for the M.A. Twenty-five were taking Biochemistry as a minor for degrees in other departments, and 9 were taking work as a major in Biochemistry.

Some students had to be refused admission to the advanced Biochemistry course owing to lack of room. The increased number of post-graduate students taking this course has been a severe tax on available accommodation and on the department's appropriation.

In order to comply with a request from the Department of Biology for a course in Biochemistry better suited than the present General Course to the needs of students in the Biological Sciences, a new course has been devised and will be given during the coming session to these students. It comprises lectures in Comparative Biochemistry and a laboratory course in General Biochemistry averaging three hours a week

throughout the session. It has been decided also by the Faculties of Arts and of Medicine to substitute this course for the present course in the new curriculum for the course in the Biological and Medical Sciences.

The staff of the department, when not employed in teaching, have been busily engaged throughout the session and during the summer vacation in many researches which have been described in a separate report to the President.

DEPARTMENT OF HISTORY OF MEDICINE

(*Under the direction of Professor J. H. Elliott*)

The course of lectures laid down in the curriculum was given. The attendance at lectures has been most gratifying.

The collection of lantern slides used to illustrate these lectures is growing from year to year, and forms a nucleus of a collection which will prove of value for future years.

I attended—(1) The annual meeting of the American Association of the History of Medicine at Atlantic City in May and took part in the discussions, (2) the X International Congress of the History of Medicine in Madrid in September. Having been designated a representative of the University of Toronto a report of this Congress was made to the President. A number of historical books gathered at the Congress was added to the libraries of the University and the Academy of Medicine.

There have been numerous calls during the year for lectures outside the University. In addition to many others seven were given before Medical Societies, some outside the city, and two to groups of graduate nurses.

Assistance was given the Director and Staff of the Mountain Sanatorium in the preparation of an Historical Exhibit of Landmarks in the History of Tuberculosis. This has been gracefully acknowledged.

Acknowledgment is made to the Academy of Medicine, Toronto, for the use of much of their valuable material in the form of books, manuscripts and portraits to illustrate the course of lectures.

May I again express the hope that the time is not far distant when we may have a special room set apart in the

library for History of Medicine where small groups of students may have an opportunity to become acquainted with the important texts in medicine, and receive instruction in bibliography and reference work.

DEPARTMENT OF HYGIENE AND PREVENTIVE MEDICINE

(Under the direction of Professor J. G. FitzGerald)

The enrolment of graduate students in the course leading to the Diploma in Public Health for the session 1935-36 numbered ten. The following provinces were represented: Manitoba, New Brunswick, British Columbia, Quebec. Two candidates were from countries other than Canada, one from India, one from Jamaica. Nine students were on fellowship; four Rockefeller Foundation and five Connaught Laboratories.

Since the opening of the School of Hygiene in 1927, ninety-seven students have completed their studies for the Diploma in Public Health. A total of one hundred and forty-seven students have been enrolled since the course was first offered by the Faculty of Medicine in 1911.

Dr. F. H. Fraser has been promoted to the position of Assistant Professor of Hygiene and Preventive Medicine. The department is fortunate in having as a part-time member Dr. Ronald Hare, M.B., B.S. Lond., who joins the staff of the Connaught Laboratories.

In the sub-department of Chemistry in Relation to Hygiene Dr. Moloney and his associates have pursued a number of problems dealing in the main with certain phases of the chemistry of antigens. A study of thirteen American Schick toxins was made to determine their combining power and toxicity according to the requirements of the Commission on Biological Standardization of the League of Nations. A series of tests on human subjects with these same toxins was made by Dr. Brandon. The results of the tests on animal and human subjects suggest that the League of Nations requirements for Schick toxin might be improved upon by a change in toxicity and combining power. Dr. E. M. Taylor has continued her investigations upon the new autolysate medium for the production of diphtheria toxin.

A more comprehensive list of the researches pursued by members of the teaching staff will be presented in greater detail in the report of the Director of the Connaught Laboratories.

Dr. M. H. Brown has pursued his studies on allergy and the antigenic properties of typhoid vaccine. Dr. F. H. Fraser and Dr. H. C. Plummer have continued their experiments on the classification and properties of haemolytic streptococci. Dr. Sneath has investigated certain phases of experimental infection of animals with tetanus and the duration of antitoxic immunity following vaccination with tetanus toxoid in man. Dr. Kitching has made valuable contributions to the subject of staphylococcal immunity. Dr. C. H. D. Clarke continued his research on the Leucocytozoon in grouse. Dr. D. T. Fraser has continued his studies on diphtheria immunity. He delivered a DeLamar lecture upon this subject at Johns Hopkins University.

The usual instruction in Preventive Medicine has been given to students of the fifth year in medicine. Lecture and laboratory courses were given to students of the School of Nursing and students of the Faculty of Engineering, and lecture courses to students of the Faculty of Household Science and the Faculty of Arts.

The Department of Health, Ontario, and the Department of Public Health, Toronto, have, as in previous years, given generous assistance both in time and personnel and have by this co-operation greatly contributed to the success of the field course.

The enrolment for the session has been as follows:

Graduate	14
Faculty of Medicine, Fifth Year	123
Faculty of Household Science, Third and Fourth Years	27
Faculty of Arts, Third Year	35
Department of University Extension	42
School of Nursing	49

DEPARTMENT OF MEDICINE

(Under the direction of Professor Duncan Graham)

During the past year no essential changes in the general plan of instruction have been made. Recent alterations in

the Medical Out Patient Department of the Toronto General Hospital provide almost ideal arrangements for practical instruction in clinical medicine to the final year students. Unfortunately, the increasing number of students in attendance is taxing the facilities of the wards and of the Out Patient Department and making efficient instruction extremely difficult.

The end of the present session marks the retirement of Dr. F. A. Clarkson, Assistant Professor of Medicine, after twenty-seven years of loyal and faithful service as a teacher in the Department of Medicine.

G. A. McVicar, Ph.D., Research Fellow in Medicine for the past two years, has accepted a position on the staff of the Connaught Laboratories.

An increasing number of clinical problems are under investigation. It is very gratifying to observe the continued interest and activity in clinical investigation shown by former whole-time members of the staff who are now serving on a part-time basis.

Dr. Rykert and Dr. Hepburn have published a paper on the use of strophanthin in the treament of auricular fibrillation.

Dr. Hyland has forwarded for publication a report of his results in the treatment of myasthenia gravis by glycine and ephedrine. Dr. Maltby has made a preliminary report of some observations on glycine metabolism in patients suffering from myasthenia gravis.

Through the kindness of Professor Best, a supply of protamine insulin from Professor Hagedorn was made available for the treatment of patients with diabetes mellitus. A preliminary report on the physiological and clinical aspects of protamine insulin by Dr. Kerr and Professor Best of the Department of Physiology and Dr. Campbell and Dr. Fletcher of the Department of Medicine has been made. Dr. Campbell, Dr. Fletcher and Dr. Kerr have published a report on the use of protamine insulin in the treatment of diabetes mellitus.

Dr. Campbell and Dr. Dauphinee have developed a method for the determination of iron in small amounts of blood and tissue which promises to yield valuable information in the study of the metabolism of iron. Dr. Campbell has

modified Bennhold's Congo Red test for amyloid and developed a suitable clinical method for the quantitative estimation of amyloid.

Dr. Cleghorn is continuing his clinical and experimental studies on the adrenals. Last year reference was made to the work of Dr. Cleghorn and Dr. McHenry of the Department of Physiological Hygiene on the preparation and assay of adrenal cortical extract. They have prepared a potent extract which has proved to be effective in the treatment of the crises occurring in Addison's disease. This extract is now being made and distributed by Connaught Laboratories. Dr. Cleghorn, S. M. M. Cleghorn, M. G. Forster and G. A. McVicar have published a paper incorporating the results of a two-year investigation on the factors influencing the survival of rats after adrenalectomy. Dr. Cleghorn and Dr. McVicar have continued their investigation on the chemistry of the blood and urine in adrenal insufficiency.

Dr. Dauphinee and Mr. Wakefield have made a preliminary report on the serum phosphatase in hepatic jaundice.

Studies on liver disorders, anaemia, pigment metabolism, and the peripheral vascular system are being continued.

DEPARTMENT OF OBSTETRICS AND GYNAECOLOGY

(Under the direction of Professor W. A. Scott)

The work of the department has been carried out in accordance with the course laid down in the curriculum.

Dr. Henderson has carried on an investigation of pregnancy and heart disease and is reading a paper on this subject at the Canadian Medical Association in June. These cases are now being looked after by a combined cardiac and obstetrical clinic in conjunction with the Department of Medicine with most satisfactory results.

The study of Dr. Goodwin's in connection with pelvic inclination in pregnancy and the relationship of anthropological factors to labour has been completed and is being put in final form for publication.

Dr. Mann demonstrated a new obstetrical forceps before the New York Obstetrical Society and the forceps are now

in the hands of the manufacturer preparatory to being put on the market. During the year Dr. Mann completed a very interesting study of the mechanical factors involved in the dilatation of the cervix and presented it to the staff by means of a very ingenious mechanical demonstration.

Drs. Scott, Cosbie and Mann, in collaboration with the Institute of Radium Therapy, have been carrying on the radiological treatment of carcinoma of the genital tract and Dr. Cosbie presented to the staff a valuable study of the results up to date.

Dr. Low presented to the staff a study of the caesarian sections done during the last ten years and this is being put into form for publication.

The study of the physiological changes in the ureters during pregnancy which was carried out in collaboration with the Departments of Urology and Radiology has been completed and the results are being prepared for publication.

Dr. M. C. Watson, who has been working as a voluntary assistant in the department, has, in collaboration with Dr. Marrian of the Department of Biochemistry, carried out an investigation on the clinical effect of various oestrogenic substances, the results of which have appeared in two articles. This work is still continuing.

The study of the sedimentation rate of the erythrocytes in cases of infection, cancer, early and late toxaemias of pregnancy, new born foetus and at various stages of the menstrual cycle have been carried on by Dr. Scott in collaboration with several members of the staff. This work is still being pursued.

DEPARTMENT OF OPHTHALMOLOGY

(Under the direction of Professor W. H. Lowry)

The students have been regular in attendance and attentive at the lectures and clinics and have shown on examination to have a working knowledge of the ordinary diseases they are apt to meet with in practice.

Dr. MacDonald has overseen the section and study of one hundred and thirty-eight pathological specimens, a considerable increase over last year. Papers have been read in

Ophthalmological congresses based upon the study of some of these pathological specimens. Quite a number of these specimens have been sent to the department from various centres throughout Ontario. No charge has been made for this work and it has come to the time when perhaps some different arrangement should be made.

Dr. Morgan has been perfecting a technique for the transplantation of corneal tissue in rabbits and has some rather promising results already. So far we have not been able to do this on the human eye.

Dr. Johnston is doing some investigation in the fluid obtained in detached retina cases, with the object of adding to our knowledge of this serious disorder.

The staff has worked harmoniously together and have benefitted much by the kindly co-operation of the various medical departments, particularly the departments of Pathology and Medicine.

DEPARTMENT OF OTO-LARYNGOLOGY

(Under the direction of Professor P. G. Goldsmith)

The work of the Department of Oto-Laryngology for the past year has been carried out much more satisfactorily owing to the completion of the new Out-Patient's Department and the excellent equipment provided.

The attending staff is composed of gentlemen who have appointments on both the General Hospital and the Faculty of Medicine. When this policy was originally formulated the Out-Patient's clinics were not so large, nor were the medical students so numerous, so a much smaller staff was able to carry on satisfactorily. Now however, the work justifies the number of surgeons working in the Out-Patient's Department, for clinics are held every day throughout the year except during the months of July and August when two clinics a week only are held.

The tendency to lessen the teaching of the specialties in the Faculty of Medicine, following the practice of the British Schools, makes a review of the personnel of the teaching staff desirable. There are too many if the amount of teaching is lessened and the number of students is curtailed.

I am strongly of the opinion that the number of the teachers in the Oto-Laryngological Department should not necessarily be the same as on the staff of the General Hospital. A reduction in number is necessary if uniformity and supervision of the teaching is carried out. Only those who teach students should receive honorariums. As things are now every member of the University staff receives remuneration, and some teaching is found to justify the payment. If the number is reduced to conform to the change in teaching, those who do this work could be better paid, or extra money for equipment provided, without increasing the budget.

Two members of the staff have resigned, Dr. John Calhoun and Dr. M. Whyte. These gentlemen have given long and faithful service.

In my report of 1933 I spoke of the importance of medical publications, and the attending of medical meetings by members of the staff. I am glad to say there has been a very great change in the Department of Oto-Laryngology. The scientific publication has very greatly increased, and the attendance of the members of the department to special society meetings has surprisingly improved. I think this is the most outstanding feature of the past year's work.

The head of the department gave a series of post-graduate lectures at the Gill Memorial Hospital, Roanoke, Virginia, and took part in the instructional course of the American Academy of Oto-Laryngology and Ophthalmology in Cincinnati, Ohio. A special clinical evening was given by the department during the meeting of all the National Oto-Laryngological Associations of the United States of America and Canada. This demonstration was very highly regarded by the leading oto-laryngologists of the continent.

The Perry Goldsmith Prize in Oto-Laryngology was awarded to Dr. Joseph Sullivan in recognition of his work in facial nerve grafts.

DEPARTMENT OF PAEDIATRICS

(Under the direction of Professor Alan Brown)

The work of the Department of Paediatrics has been energetically prosecuted during the past year. At the present

time more and more attention is being directed to the prevention of disease, and the results obtained are fully justifying this aspect of our work. The severe degrees of malnutrition which were formerly frequently seen have now become a rarity. Very few cases of rickets and scurvy are now encountered. Formerly rickets accounted for many severe bone deformities requiring months of surgical treatment for their correction. The level of health of the children admitted to the hospital is higher than that encountered ten years ago. In this regard it is of interest to note the infant mortality figures in the Hospital for Sick Children. In September 1931, the mortality rate was 39 per cent. This had dropped in September 1933, to 32 per cent., and in September 1935, to the low figure of 16 per cent. This remarkable improvement in the infant mortality rate is due not only to the improved methods of treatment but to the infants being in better physical condition on admission to the hospital. We believe that the wider understanding of some of the fundamental principles of nutrition as taught by this department is a real factor in this improved health of the infant population of Canada.

In conjunction with the Connaught Laboratories, an extensive survey has been made on children suffering from meningococcic meningitis from the standpoint of both treatment and prevention. The work on the development of an effective whooping cough vaccine and also the use of placental extracts in the prevention of measles is progressing with satisfactory results. The development of different serums is being carried out.

Working in association with the Department of Pharmacology and the Banting and Best Department of Medical Research, further studies have been made on the important subject of the prevention of poisoning in children. Recommendations have been made to prohibit the use of certain pharmaceutical products which have been found to be the cause of the death of many Canadian children each year.

Observations have been continued on children suffering from nephritis and it has been found that a number of these patients have an underlying anatomical defect. Some of these defects lend themselves to surgical correction. Further

progress is being made in the study of various chest conditions in children from the standpoint of their treatment and prevention.

The joint effort with the Department of Psychology on an investigation of the effect of dietary deficiencies in early life on learning ability is being continued.

Studies have been made on the iron requirements of children and the availability of iron in foods. It has been found that only a portion of the total iron in food is available for the iron nutrition of children. This is a very important observation and our present conception of iron metabolism will probably have to be changed.

Interesting studies have been made on the effect of a low mineral intake on intestinal stasis. During the past year it has been found that a diet low in calcium and potassium results in marked stasis in the appendix. Further studies are being conducted which may give results of considerable practical value.

The nutritional studies are being continued and information is being obtained which indicates very definitely that diets which we have considered adequate are still not optimal and that simple changes may be made which will do much to further increase the health of the infant and child.

The value of the work done in the department extends far beyond the City of Toronto. This is accomplished by the teaching of the nurses, medical students, internes and post-graduate medical students, and the numerous scientific publications in various medical journals. Continued efforts are necessary to see that the benefits already obtained are not lost and that additional research is energetically prosecuted to still further improve the health of the Canadian child.

DEPARTMENT OF PATHOLOGY AND BACTERIOLOGY

(*Under the direction of Professor Oskar Klotz*)

During the past year the Department of Pathology and Bacteriology has carried on, following the general policies previously established wherein the limited staff has devoted its main attention upon undergraduate teaching and the

maintenance of a high standard in the routine work which devolves upon the department.

As regards the problem of teaching, which year after year is closely scrutinized, some changes have been made in respect to the presentation of the subjects to the students—which changes we hope will be but the beginning of some more radical ones, for the improvement of the teaching methods. It is needless to repeat our comment of the past few years that too much cannot be hoped for in the improvement of teaching as long as the disproportion between the number upon the teaching staff to the number of students in each class continues to exist. In truth, to maintain a high standard, such as is expected by all who are interested in the progress of the medical faculty, requires the unusual and greatest efforts on the part of each individual in this department. This concentrated effort demands much time on the part of the staff, and tends to fatigue these officers in their other endeavours, particularly research. At the present the room-space, equipment and personal effort is taxed to its maximum, and we fear that unless relief in some measure is obtained, the quality of the teaching will be seriously affected.

Attention is being given in the reconstruction of the course in Pathology in the fifth year. It is during this year that the student observes the effect of disease upon the human body, by attending the autopsies. It is intended to re-arrange the programme both as to the time of presentation of the gross pathology to the student, as well as the manner in which the subject is brought to the student's attention.

It has been our experience, extending over many years of teaching, that in Pathology a proper evaluation of the student's proficiency cannot be obtained by written examinations alone. It is much better to determine the student's ability to appreciate the fundamentals and essentials of the subject by giving them a series of tests (oral, practical and written) at intervals during the year. The final written examination is then only an additional test of relative value to the whole.

During each year we receive applications from graduate students offering themselves as voluntary assistants in the department. These individuals are given responsibilities within the department while also they are granted facilities

to carry on work in their chosen field. In the past year there have been two such assistants in Pathology (Dr. H. L. Vanderveer and Dr. J. W. Sinclair), and one in Bacteriology (Dr. Marion Ross). These assistants give full time service.

We are continuing to offer practical instruction to undergraduate students during the summer months. These students are distributed through the divisions of Bacteriology, Surgical Pathology, Autopsy Pathology and Neuropathology. As we are able to accommodate only a limited number of students, it is not possible for us to take care of all the applications which are received. This opportunity for special students resembles somewhat the instruction at a Summer School. The courses extend from June 15th to September 15th.

Autopsy clinics for the staff and for graduates continue throughout the year, twice a week. On these occasions, the recent autopsies are presented and the cases discussed. By this means, the staff is kept informed of the nature of the interesting cases which come to autopsy and a correlation of the clinical and pathological findings is made.

The work in the division of Neuropathology continues to increase. The examination of the brain and spinal cord is becoming a more routine matter than heretofore. There is a wealth of material, and this receives the direct attention of Professor Linell. Individual clinics in Neuropathology are being held once a week, at which time the details of each case having a neurological bearing are discussed.

The routine work in the divisions of Surgical Pathology and in Bacteriology is increasing each year. In the former, a great deal of diagnostic work is carried on for the diagnosis of malignant disease.

The list of research studies is contained in a separate report.

DEPARTMENT OF PATHOLOGICAL CHEMISTRY

(*Under the direction of Professor Andrew Hunter*)

In submitting this first of what may be called my "Second Series" of Reports from the Department of Pathological Chemistry, I cannot help commenting upon the great expansion which the department has undergone since I last

reported upon it in 1920. Physically, of course, the department, to which I have returned, is an entirely new one, occupying premises more commodious and, in many ways, more convenient than those with which I was familiar in the old Pathology Building. This outward expansion is not more striking than the internal growth which I find the department to have undergone. In 1920 the full-time teaching staff consisted of two, a professor and a lecturer, the total number taking part in the work of instruction was only five, there was but one (unskilled) technical assistant, and the head of the department operated his own typewriter. The teaching staff now has eight members, four of whom are on a full-time basis, and two of whom have professorial rank; the technical staff has increased to three, of whom two are highly trained; and the clerical work of the department, together with certain skilled technical work of a special kind, is performed by a secretarial assistant. This doubling of the staff has been accompanied, I find, by an increase in the services rendered by the department both to the University and to the Toronto General Hospital, and by an increase in its contribution to medical and scientific research. In 1919-1920 only two individuals were actively engaged in research within the department; during 1935-36 there have been eight.

In some respects the growth reflected in these changes is accounted for by the general expansion shared in by all departments of the Faculty of Medicine during the last fifteen years. In others it is the direct consequence of the initiative and inspiration furnished by the late Professor V. J. Harding, and of the loyal services of the staff which he had gathered around him. I shall consider myself to have deserved well of the University if I succeed in maintaining the department at the high level of efficiency to which he had brought it.

The scheme of instruction in Pathological Chemistry still follows the general plan instituted by the first occupant of the chair, Professor J. B. Leathes. The details have been changed from time to time to correspond with the progress of knowledge and with the shift of contemporary emphasis from one part of the subject to another. During the current year I have found it desirable to make a few modifications in the labora-

tory work of the fourth year, and have altered somewhat the content of the fifth year lecture course. A share of the work of this course has been taken by Professor Nicholson and Dr. Urquhart, while Dr. Selby has continued to give special tutorials to small groups of fifth year students, and Dr. Urquhart has supervised the clinical laboratory work of senior students attending the General Hospital.

A perennial problem for this department has been the proper organization and control of the laboratory work of the fifth year students attending medical clinics at St. Michael's Hospital. Dr. Boddington, who has charge of this work, has found that it is almost impossible to secure the attendance of students at the hour of 4 to 5 p.m. formerly allotted to it. This year the co-operation of the clinical teachers at St. Michael's has made it possible to try the experiment of giving special instruction in laboratory work during one of the morning hours. The experiment appears to have produced an immediate improvement in the quantity and quality of the work performed by the students. Whether it will provide a permanent solution of the problem remains to be seen.

The total number of students receiving formal instruction in the department during 1935-36 was 256. Of these 125 were fourth year medical students, 123 fifth year medical students, 1 a candidate for the B.Sc. (Med.) degree, and 7 graduate students proceeding to the degree of Ph.D. Of the last group 2 were doing their major work in this department.

As mentioned already, eight workers (including two technical assistants) have been engaged during the year upon problems of research. The details of their work are set forth in a separate report to the President. The number of original papers published by members of the department has been seven.

I cannot close this Report without expressing my appreciation of the loyal support accorded to me throughout the year by the junior members of the staff. I am particularly indebted to Professor T. F. Nicholson, who had carried for a year the entire responsibility of the department, and who has given me amply and freely the benefit of his knowledge and experience.

DEPARTMENT OF PHARMACOLOGY

(Under the direction of Professor V. E. Henderson)

The teaching in this department during the past year has been satisfactory as we were fortunate in having a trained staff at our disposal in the teaching laboratories.

You will find attached a list of the papers published during the present year and I would like to call your attention to the two studies of Choline and Certain of its Analogues by Drs. Roepke and Welch. These papers give us a further insight into the mode of action of a very important group of compounds, important because one of them we now believe is constantly produced in the body and, indeed, forms the means by which nervous impulses set into activity many of the secretory mechanisms of the body.

The paper on the Respiratory Centre by myself and Dr. E. Horne Craigie of the Department of Biology is a report on the location of the respiratory centre in the medulla and its connections. This has been a very wearisome study but is of undoubted value both theoretically to pharmacologists and practically to surgeons of the central nervous system.

Dr. Lucas and myself have concluded a paper which is now in press on The Physical Properties of Mucus Secretion. This paper reveals the lubricating and protective characteristics of the mucus produced in the bronchi and by the salivary glands.

In conjunction with Mr. A. H. R. Smith, working under a grant from the Banting Research Foundation, certain derivatives of furan have been studied for their anaesthetic properties. Though they are of theoretical interest, they are not practical anaesthetics. This paper is also in press. We have also carried out a further study of some of the impurities of the anaesthetic propylene, which has led us to examine another group of gases with extraordinary physiological properties. This paper too is of theoretical importance, as it discloses a type of impurity which might occur in cyclopropane and which will have to be guarded against in its preparation. In conjunction with Mr. Smith and Dr. Roepke a method of recording pulse pressure electrically has been devised and gives promise of enabling us to solve some of the prob-

lems of pulse pressure which are so important in clinical medicine.

Dr. Roepke has undertaken a study of the reactions occurring between acetylcholine and the esterase which breaks it up in the body. This study has revealed some very interesting data whose exact interpretation at the moment is not clear, but will undoubtedly throw important light on certain of the physiological mechanisms of the body. A preliminary report of this work was given before the American Pharmacological Society in March and a paper is being prepared dealing with the first phase of this work.

DEPARTMENT OF PHYSIOLOGY

(Under the direction of Professor C. H. Best)

The teaching and research work of the department was conducted this year with the help of an enthusiastic group of junior members of the staff. Dr. Beecher Weld was appointed head of the Department of Physiology of Dalhousie University and was granted leave of absence for the months of April, May and June. He spent this time in London, England. The head of the department was appointed a guest lecturer at Yale University and gave a series of lectures on respiration and carbohydrate and fat metabolism.

Dr. Robert Kerr and the head of the department have been very much interested in the physiological effects of protamine insulin. Several members of the colony of diabetic dogs have been very successfully maintained on the new material. Dr. Kerr accepted invitations to discuss the results of this work at medical meetings in Atlantic City and in Kansas City.

Professor N. B. Taylor, with Dr. C. B. Weld and Dr. J. F. Sykes, has continued his researches on calcium metabolism as related to the action of the parathyroid hormone and irradiated ergosterol. The phenomenon of tolerance to parathormone and irradiated ergosterol, as exhibited by dogs receiving repeated doses of these agents, was investigated. A report of these experiments has been published. With the help of Dr. A. C. R. M'Gonigle, who devoted this year to research in the department, work upon intestinal obstruction was

extended and a study made of the possible role played by dead muscular tissue in the causation of surgical shock. Dr. Sykes in a series of ultra-filtration experiments investigated the diffusible and non-diffusible fractions of the serum calcium in dogs and the effects upon them, respectively, of parathormone, irradiated ergosterol, parathyroidectomy and the calcium intake level. The results of this investigation formed the basis of Dr. Sykes' thesis for his Doctor of Philosophy degree which he obtained this year.

In collaboration with Miss J. P. Griffiths, Dr. E. T. Waters has conducted further work on the metabolism of fructose in mammals. The rapidity which which the liver converts this sugar to some other substance, presumably to glucose, either directly or indirectly, has been shown by the very small amount of fructose present in the hepatic tissue of rats absorbing fructose from the intestine. They have been able to demonstrate for the first time that the liver is not the only organ of the body which can effect this conversion. Certainly when fructose is added to the perfusing fluid of a canine heart-lung preparation there is some utilization of fructose, with a small but definite conversion to glucose. They are of the opinion that this conversion occurs in the lungs. Glucose-free blood has been prepared for use as perfusing fluid in these latter experiments. Using this blood, which has a number of obvious advantages, they have also investigated the utilization by the heart and lungs of the substances, such as fatty acids, lactic acid, dihydroxyacetone and glyceraldehyde.

With Dr. A. H. W. Caulfeild and Dr. M. H. Brown, Dr. Waters has made further studies on ragweed pollen sensitization. By the addition of 1 per cent. alum to an aqueous extract of ragweed pollen it is now possible to induce a high degree of sensitization to the pollen in practically all guinea-pigs receiving an intravenous injection of the material. Inability to sensitize successfully more than a small proportion of injected guinea-pigs has been in the past a serious obstacle to obtaining conclusive results in some of these experiments. It has been established that the carbohydrate fraction of ragweed pollen does not bring about anaphylactic shock in animals highly sensitized to ragweed pollen. Recently the very encouraging result that carbohydrate when injected a

few minutes before a shocking dose of antigen blocks the otherwise fatal anaphylaxis, has been obtained.

It has been generally assumed, chiefly on the basis of oral administration of lactate, that synthesis of lactic acid to glycogen in the liver is a normal step in the "carbohydrate cycle". Evidence that lactic acid is removed by the liver is satisfactory but (except in the case of oral administration) increases in liver glycogen subsequently have not been consistently demonstrated. The factors influencing deposition have been studied by Dr. Rhoda Grant, and the state of the liver with regard to fatty acid concentration has been found to be of importance.

An attempt has been made by Dr. J. M. Hershey to confirm the findings of Asher and his colleagues, that certain extracts of thymus glands produce remarkable effects on the development of white rats. The experimental procedure so successful in the hands of Rowntree has been followed. The onset of warm weather will delay or prevent the completion of this work, but no significant new findings have thus far been secured.

DEPARTMENT OF PSYCHIATRY

(Under the direction of Professor C. B. Farrar)

During the year the Faculty of Medicine established a diploma in psychiatry (D.Psych.). This diploma is to be granted to those graduate students who have completed the one year graduate course in psychiatry, satisfied the requirements in clinical work and passed the regular examination. Six physicians were enrolled in this course during the present session, and it is anticipated that the first diplomas will be issued to the successful candidates in the autumn of 1936.

The undergraduate teaching programme remained essentially unchanged. Special note should be made of the elective course of sixty hours devoted entirely to clinical case work. Twenty-six fifth year students took this course, this being the largest number so far enrolled for the elective course.

Investigations being carried on in the department included studies in The Pathogenesis of Suicide, The Origin and Significance of Ideas of Reference, The Socialization Factors

Involved in Foster Home Placement in the Treatment of Children with Conduct Disorders, The Relationship of Thyroid Conditions to Anxiety States, Metabolism Studies in Acute Febrile Excitement, The Etiology of Subdural Hematoma in Psychiatric Material, Neuropathology of States of Acute Excitement.

At the annual meeting of the Ontario Medical Association in London the silver medal was awarded to Dr. J. A. Hannah, fellow in neuropathology, for his exhibit of pathological specimens.

The first award of the degree of Doctor of Philosophy in the Department of Psychiatry was made this year to Dr. Ruth MacLachlan Franks, who submitted a thesis on The Pathogenesis and Prevention of Suicide.

The department has been represented on a sub-committee appointed by the Canadian National Committee for Mental Hygiene at the request of the Dominion Council of Health to consider the question of teaching methods and programmes in psychiatry and mental hygiene in nursing education. This study has been going on during the past two years and the committee has now submitted its report on The Training of Nurses in Mental Hygiene and Psychiatry, and embodying the minimum standards of such training. The ultimate objective of the programme is to provide a single comprehensive course of instruction for all nurses, including both general and mental hospitals.

Staff changes. Dr. A. J. Kilgour, fellow in psychiatry, returned from a two year period of post-graduate study in Europe, and has been appointed professor of psychiatry at Queen's University and superintendent of the Ontario Hospital, Kingston. Dr. C. H. McCuaig, fellow in psychiatry, was promoted to the position of demonstrator. At the end of the present session he leaves for two years post-graduate work in Europe.

DEPARTMENT OF RADIOLOGY

(Under the direction of Professor G. E. Richards)

The activities of the department have continued without any very striking change since the previous years. Owing to

changes in the method of teaching in the Department of Surgery, the hours allotted to the Department of Radiology have been reduced about one third and this necessitated a re-arrangement of the whole programme of teaching. The result has not been very satisfactory and it is hoped that some improvement in this respect may be possible as, under the present conditions, the teaching of Radiology is suffering seriously.

The combined work of the Department of Radiology and Ontario Institute of Radiotherapy in the treatment of malignant disease is developing rapidly. During the year over 700 patients were admitted on the wards and just under 1,000 new patients were received for treatment in the combined departments, in addition to over 600 cases of non-malignant disease. Very encouraging results have been obtained in the treatment of several groups of cases, the results of which are being published in the near future.

The chief progress which has taken place has been due to the more effective use of high voltage X-rays by the fractional dose method but this method, while it is much more effective than in former years, imposes a greatly increased burden on the department. Nearly 11,000 treatments were administered during the year, the average duration of each of which is from forty minutes to one hour.

Owing to financial limitations almost no research work has been undertaken. Dr. J. Sommers completed the course leading to the Diploma in Radiology and has been appointed Resident in Radiology for the ensuing year, succeeding Dr. Sampson. No other staff changes have occurred.

DEPARTMENT OF SURGERY

(*Under the direction of Professor W. E. Gallie*)

The most important event of the year from the standpoint of the teaching of surgery, has been the reorganization of the Toronto Western Hospital on such a basis that it has become possible for the University to send groups of sixth, fifth and fourth year students there for clinical instruction. Under the new organization, Dr. T. A. J. Duff has been appointed Surgeon-in-Chief, with the rank of Assistant Professor, and

under his direction six other surgeons, Dr. Spence Reid, Dr. Charles W. Harris, Dr. L. T. Barclay, Dr. A. W. M. White, Dr. R. C. Laird and Dr. H. F. Mowat, of whom Drs. Reid, Harris, Laird and Mowat have sessional appointments in the University. The surgical division has assigned to it, eighty beds, with a daily out-patient and emergency service, so that there should be an excellent opportunity for the training of both students and staff. This reorganization has been under consideration for many years and it appears now to have been brought to a satisfactory completion.

The attention of the department has been directed, for a long time, to the unsatisfactory state of the teaching of surgery in the final year. Theoretically the assignment of a trimester of ten weeks to surgery seemed sufficient. In practice, however, while the opportunities for clinical study were there, our students, either from shyness or lack of aggressiveness, failed to make use of them and wasted most of their time. Gradually also, various demonstrations and lecture courses crept into the afternoons, first at four o'clock and then at twelve and three, so that the actual surgical training was confined to the mornings.

This state of affairs has been partially remedied by making the students on surgery a part of the hospital organization and giving them regular hospital duties under the direction of the interne staff. Improvement, however, is much interfered with by the various courses of lectures on other subjects than surgery and until these can be arranged for in some other way, it will not be possible to give the student the best opportunity.

This summer the department is trying out an experiment in summer teaching in the final year. Twelve students have volunteered to take their surgical trimester during June, July and August. Three have been attached to each division at the General and St. Michael's Hospitals and they are acting as assistants to the internes. At the end of the summer they will have a clinical examination and if their work has been satisfactory they will not be required to face any further clinical examination in this subject. So far the experiment has worked well and these students are receiving better practical surgical training than any group of students ever

received before in this school. We shall extend the plan to take in larger groups of students at the first opportunity.

The Department of Surgery is strongly in favour of the proposal which has been discussed in faculty meeting that this time of the final year should be increased from 30 weeks to 48 weeks, and that the trimesters should be correspondingly increased from 10 to 16 weeks. This would improve matters in two respects, first, that this time for the students' apprenticeship would be decidedly lengthened, which would be much to their advantage, and second, it would enable us to establish the students as a definite and permanent part of the hospital organization, as is the case in London, England, without the upheaval that takes place at present on the first of May and the first of October.

Each year I bring to your attention the calamitous effect of the constantly increasing numbers of our students on the quality of our teaching. I have no thought that it is the function of a Medical School to attempt to teach the Art of Surgery to undergraduate students, but it is becoming increasingly difficult, owing to the numbers, to teach them the bare essentials that are necessary for general practice. Besides interfering with the quality of our clinical teaching, the number of students is creating a nuisance in the hospitals, both from the standpoint of the management and of the patients and I anticipate before long sharp criticism from both directions. We simply must find a way to limit the number of students coming into the clinical years.

In former years it has been the custom to send a group of final year students to the Hospital for Sick Children each trimester for their training in surgery. This has never been satisfactory, however, because the patients at that hospital are all children and the students therefore missed the opportunity to study the surgical diseases of adult life. To get over this difficulty, we shall transfer these students to the Western Hospital and arrange that every student in the fifth year will have a course of clinics at the Children's Hospital.

In the final examination in the sixth year we this year tried out the new type of examination advocated in some of the American schools, in which, instead of the usual five or six questions which are answered in the form of an essay, a

hundred or more questions are asked. These questions cover the whole field of surgery and can be answered in a line or two. We were favourably impressed with the method in two particulars, first, its fairness, and second, the accuracy with which the class can be graded. The objection to it is that it is a most laborious undertaking to prepare a paper. On the whole, however, the advantages outweigh the disadvantages and we shall continue it.

During this year the research being conducted by Professor Best and Dr. Gordon Murray on the clinical uses of heparin has been brought to such a stage that it may now be used on patients. In order that it may be properly studied in the hospital, one of the Assistant Fellows, Dr. Wilkinson, has been released for six months from his regular clinical work in order that he may study those patients in whom heparin is used. It is hoped that the drug will prove of value in preventing thrombosis in blood-vessels which have been operated upon, and will lessen the incidence of pulmonary embolism after operations. This research will be continued by the Departments of Physiology and Surgery.

The alliance of the Departments of Radiology and Surgery continues to work satisfactorily and a most important clinical investigation is being conducted there by Drs. Richards and Wookey on oral cancer. Hundreds of cases are under constant observation and within a short time it will be possible for these gentlemen to issue an authoritative statement as to the prognosis and treatment of this disease.

Similar studies are being conducted by Dr. Richards along with Dr. R. M. Janes and Dr. R. I. Harris, on cancer of the breast and sarcoma of bone, and progress is being made.

Clinical studies of the action of staphylococcus antitoxin and toxoid are being conducted at the Hospital for Sick Children by Dr. Keith and at the General Hospital by Dr. Welsh. As the number of patients is small, it will be a long time before any authoritative statement can be made, but the study will be continued until the action of these products is well understood.

The study of nerve regeneration being conducted by Dr. Sullivan of the Department of Oto-Laryngology, Dr. Linell of the Department of Pathology and Dr. Keith of the

Department of Surgery continues. It should be brought to completion within a year.

The Department of Surgery, through Dr. Gordon Murray, has been of assistance to the Department of Pathological Chemistry in a most promising research on the function of the kidney, being conducted by Drs. Urquhart, Nicholson and Selby.

The post-graduate course on Fractures held in the last week of September proved an unqualified success. Thirty-three doctors attended from all parts of Ontario, and they expressed themselves as delighted with their entertainment, both scientific and social. From the letters we have received it is evident that such courses will do much to keep the University and its graduates in closer touch with one another and we propose to put on such a course each year. This September it will be on Abdominal Surgery.

DEPARTMENT OF THERAPEUTICS

(*Under the direction of Professor R. F. Farquharson*)

The general plan of organization described last year has been further developed and in teaching particular attention continues to be placed on the treatment of the patient as an individual.

Clinical lectures to the fifth year, many of them given by members of the staff of the Department of Medicine, have been used extensively in demonstrating the therapeutic importance of understanding the nature of the physiological disturbances and methods of differential diagnosis, as well as to give detailed directions for treatment.

Dr. F. C. Brien, Dr. R. C. Dickson and Dr. J. F.McCreary, Senior Internes in Medicine at the Toronto General Hospital, were appointed Assistants in Therapeutics. They have given instruction to small groups of the sixth year on the medical wards on practical and technical procedures in the care of patients. Clinics to small groups have also been given in the Department of Physical Therapy of the Toronto General Hospital and through the co-operation of the Department of Paediatrics on the Wards of the Hospital for Sick Children.

Research work in the Department of Therapeutics is closely linked with similar activities in the Department of Medicine. Dr. J. C. Sinclair was appointed Research Fellow in Therapeutics. He has continued the study of the effects of the prolonged administration of large doses of irradiated ergosterol to patients suffering from parathyroid tetany, with especial attention to the prevention of cataract. He has made careful observations concerning the relative efficacy of different calcium salts in tetany and other conditions. In this work he has been assisted by Mr. H. W. Wakefield, Research Assistant in the Department of Medicine.

Dr. Sinclair and Mr. Wakefield have also continued the study of pigment metabolism in various conditions. They have made interesting observations on the effect of diet rich in meat protein on the excretion of urobilinogen and on the effect of ingestion of certain preparations of bile salts on pigment excretion.

In all the activities of the Department of Therapeutics, the active co-operation and advice freely given by Professor Graham and members of the staff of the Department of Medicine is warmly appreciated.

Sub-Department of Anaesthesia

After many years of faithful service, Dr. Samuel Johnston, Associate in Anesthesia, has retired. He is succeeded by Dr. H. J. Shields, under whose direction the organization and teaching of the Sub-Department of Anaesthesia has been continued as in former years.

Sub-Department of Physical Therapy

Teaching in physical therapy, including manipulation, has been given as formerly by Dr. Gardiner, careful attention being placed on the practical instruction of small groups. A post-graduate course on "The Principles and Practice of Physical Therapy, including Manipulation" was given in September, 1935.

ART SERVICE

(Under the direction of Miss M. T. Wishart)

It has again been a most satisfactory year. The demand for work has been constant and definite improvement noted in some of the techniques used. Our time has been more evenly distributed among the various departments of the Faculty of Medicine, resulting in a good variety of work.

The following are representative of the general range of work and the use made thereof:—

Illustrations of "Division Vestibular Portion Auditory Nerve" for Dr. K. G. McKenzie's paper read before The International Neurological Congress held in London, July, 1935.

Illustrations of "Surgical details connected with a new method of making Duodenal Fistulae," for Mr. B. F. Crocker, Department of Biochemistry and Dr. J. Markowitz, Research Associate in Physiology.

Illustration of Repair Superficial Abscess of Lung for Dr. N. S. Shenstone. Paper in preparation for publication.

Illustrations of the reaction of the Dura to Haemorrhage in relation to the production of so-called Subdural Haematoma for Dr. J. A. Hannah. This work is a continuation of that which we did last year on the formation of Subdural Membranes in the question of Subdural Haematoma. Dr. Hannah is preparing a paper which will shortly appear in the Journal of Nervous and Mental Diseases.

Wax model of a rare case of Sarcoma of the Arm for Dr. N. Wrong.

Wax model of Volkman's Paralysis to be added to the collection in the Museum of Surgical Anatomy.

Wax model of recurring dislocation Patella to be added to the collection in the Museum of Surgical Anatomy.

Summary of Work of Art Service

1. According to medium of work:
    1. Water-colour 35
    2. Half-tone 4
    3. Pen and ink 73
    4. Wax moulages 3
    5. Pencil sketches 4
    6. Mimeograph drawing 1

    Total 120

2. According to departments:
    1. Anatomy 24
    2. Biochemistry 12
    3. Hygiene 21
    4. Medicine 5
    5. Neuro-Pathology 8
    6. Obstetrics and Gynaecology 1
    7. Oto-Laryngology 5
    8. Pathology 1
    9. Pathology H.S.C. 2
    10. Surgery 41

    Total 120

3. Number of members of faculty for whom work was done..17

REPORT OF THE MEDICAL SOCIETY

Honorary President ..... Dean J. G. FitzGerald
Honorary Treasurer ..... Sir Frederick Banting
President ..... F. P. McInnis
Vice-President ..... W. MacIsaac
Secretary-Treasurer ..... P. A. Voelker
Assistant Secretary-Treasurer ..... V. R. Perry

It is indeed a pleasure to review the activities of the Medical Society for the past year.

Perhaps the most satisfying achievement was the awarding of the bursaries to those students deemed most deserving.

This was accomplished only through the untiring efforts of the Bursary Committee under the direction of our Dean, Dr. J. G. FitzGerald. At the final session of this year's executive a comparable amount was voted for the continuance of these bursaries.

The Society held two open meetings throughout the course of the year. Dr. C. H. Best addressed the fall meeting giving an absorbing account of some of his impressions of Russia during the Russian Physiological Congress. Later in the year Mr. T. A. Reed delivered an illustrated lecture on the history of the University from which were gleaned many new and interesting facts about our Alma Mater.

The Medical Journal due to the efforts of Mr. O. M. Solandt and Mr. Hugh Bright showed a profit on the year's business. A most important advance was made when the Constitution of the Medical Journal underwent a partial revision. Henceforth every undergraduate student in medicine will receive the six issues of the journal. An addition of one dollar to the Medical Society fee to cover the cost of subscription was accepted by the student body at the Annual Elections of the Society. Thanks are due chiefly to Mr. Solandt for this definite achievement.

The Medical At-Home was without a doubt the most thoroughly enjoyable evening's entertainment of that type ever offered the students in medicine. To surpass an accomplishment such as this future committees will be confronted with a considerable problem.

Daffydil, it may be said in very truth, saw its banner year. Three night performances to capacity houses is sure to remain an enviable record for quite some time. The calibre of the show was typically "Daffydilian" and met with a great reception by the audiences. Much credit is due to Mr. F. P. Dewar and his committee for the outstanding success of Medical Theatre Night and also for the fact that a credit balance remained on the Daffydil books for the first time in many a year.

The Medical Athletic Association and the Medical Women's Undergraduate Association contributed much to the extra-mural life of the medical students. Accounts of their activities appear separately in this report.

With Mr. A. D. Williams in the chair for the coming session a brilliant future for the Medical Society is assured.

Medical Athletic Association

Honorary President.....Dr. Roscoe Graham
President.....J. W. Leachman
Vice-President.....J. D. Caldwell
Secretary-Treasurer.....W. B. Charles

The Medical Athletic Association has had a splendid year. Owing to the inauguration of the bursaries, the grant from the Medical Society was not quite as large as in previous years but no inconvenience was experienced. The Athletic Association was glad to co-operate in making these bursaries possible.

The chief aim of this association has always been to have as many of the undergraduates as possible take part in some form of athletics. In this, the present association has been quite as successful as those of other years and it is estimated that about two hundred students participated in organized university or interfaculty competition during the session just ended. More than fifty "M" 's have been distributed for outstanding service in interfaculty games. Still more noteworthy are the twenty undergraduate first "T" holders.

As far as championships are concerned the volleyball, basketball, baseball and gymnastic teams proved themselves the best in the university. This is the best showing made by Medicine in several years and the students are to be congratulated for their ability and interest in these sports.

Next year as an experiment the junior interfaculty teams will be chosen from the first two years and the senior from the final four instead of the first three and final three as has been the division in the past. The purpose is to strengthen the senior teams which, due to pressure of studies in the higher years are not as well represented as the junior. If this plan is not successful the former division will be re-adopted.

Medical women's teams took part in Interfaculty Basketball and Tennis competition this year. Participation in Badminton and Swimming was not possible owing to these dates conflicting with Daffydil. In accordance with the usual custom no titles were won, but a very great deal of

enjoyment was derived by all who took part in the sports. Under the auspices of the Women's Athletic Society, afternoon teas were held in the Common Room in the Medical Building throughout examinations. This innovation was particularly enjoyed by the members of the clinical years. M's were awarded to six people this year, and two members of the graduating year are Senior T holders, for Intercollegiate sports.

Medical Women's Undergraduate Association

Honorary President.....Dr. A. A. Curtin
President.....Gladys Munroe
Vice-President.....Geraldine Maloney
Secretary.....Mary Albertson
Treasurer.....Barbara Watts

A survey of the activities during the past academic year reveals the usual high lights.

The ceremony of initiating the new members started the year off well with its mixture of seriousness and good fun. The freshettes entered with zeal and whole-heartedness into the spirit of the occasion. The Christmas Party this year proved a huge success and was an affair of much merriment and good cheer. Newman Club again provided the setting for our annual At Home, presenting the opportunity for Faculty members and students to meet in a more informal fashion. An event to be recalled with special pleasure was a delightful tea given for the women undergraduates by Dr. and Mrs. H. A. Bruce at Government House. To Daffydil the contribution by the women is steadily improving and this year we established a precedent by competing for the Cup. The women's Daffydil banquet was highly successful with Dr. Roscoe Graham as guest speaker. The fifth year students gave the graduating women a very enjoyable farewell party.

The aim of the organization is to unify the women of the various years and to establish contact between the Faculty members and the student body. The activities this year have contributed in no small measure toward the realization of this aim.